

■ Introduction

The County recognizes that the movement of people includes more than just roads. Transportation facilities not only facilitate the movement of goods and services, but they also have a profound influence on urban form. Good transportation planning includes the compatibility and incorporation of roads, sidewalks, bikeways, trails, and land use. Only through a proper and appropriate combination of these factors will movement through and within the County be maximized.

This Plan is multi-modal in that it incorporates the road network, sidewalks, bikeways, airports and railroad system. The Augusta Regional Transportation Study (ARTS) and the Georgia Department of Transportation, in cooperation with the County, undertakes the majority of Columbia County's transportation planning. This plan is an outgrowth of the 2020 Long Range Transportation Plan for the Augusta Region.

■ Travel Characteristics

Travelling by personal automobile or truck is the dominant form of transportation used by individuals and groups in Columbia County according to U.S. Census Bureau statistics collected in 1990. Data pertaining to households and vehicles available, workers and commute mode, and travel time and commute mode are presented in Table T-1, Table T-2 and Table T-3, respectively. All information contained in the travel characteristics tables is drawn from a 15% sample of households from inside Columbia County. The figures do not include information about individuals who work in Columbia County but who reside outside of the County. Year 2000 transportation planning data is not expected to be available from the U.S. Census Bureau until the calendar year 2002-2003 time frame.

A tabulation of Columbia County households by the number of vehicles available is presented in Table T-1. Of the 21,790 households in 1990, only 660 or 3% did not have any automobile available for members to use. Auto availability was so high in the County that the 6,333 households with 3 or more autos available outnumbered the 4,747 with one auto available.

A total of 31,925 workers or 97% commute to their places of employment by means of automobile or truck. The remaining 3% of workers commuted by walking, some other form of transport or they worked at home. The distribution of Columbia County workers by mode is shown in Table T-2.

Mean travel-times to work by commuting mode is presented in Table T-3. The average travel time by all modes

Table T-1
Number of Households
By Number of Vehicles Available

Number of Vehicles Available	Number of Households	% Households
0	660	3%
1	4,747	22%
2	10,050	46%
3	4,518	21%
4	1,346	6%
5	319	1%
6	88	0%
7+	62	0%
Totals:	21,790	100%

combined was 24.0 minutes. Those commuters who drove alone averaged 22.6 minutes and those who carpoolled averaged 32.0 minutes. These averages reflect individual travel times for residents of Columbia County whose work places were inside or outside of the County.

Table T-2
Number of Workers
By Commute Mode
(Residents of Columbia County)

Commute Mode	Number of Workers	% Workers
Drive Alone	27,452	83%
Carpool	4,473	14%
Bus	53	0%
Bicycle	47	0%
Walk	384	1%
Work At Home	330	1%
Other	286	1%
Totals:	33,025	100%

Table T-3
Mean Travel Time
By Commute Mode
(Residents of Columbia County)

Commute Mode	Mean Travel Time (Min.'s)
Drive Alone	22.6
Carpool	32.0
Bicycle/Walk	9.2
Avg. All Modes	24.0

■ Roadway Classifications

A wide variety of streets and highways provide access to or circulation within Columbia County. A road's function is an important parameter in planning for improvements to the roadway network. Function translates into appropriate design features such as right-of-way needs and the maximum density for curb cuts or at-grade intersections. A list of minimum standards that are based on functional class design are displayed in Table T-4. Properties of several different functional classifications are given below, along with examples of Columbia County thoroughfares that fall into each category. Figure 8-1 illustrates the general functional classification of roads in the County. Facilities are designated into one of the following four classifications: freeway, arterial, collector or local.

Functional classification can change over time. To the extent these changes are predictable, it is desirable to coordinate right-of-way acquisition, land-use planning and zoning changes with anticipated functional class changes. An example of how functional classification may influence future planning decisions is illustrated by circumstances that will likely arise from the new interchange between Louisville Road and I-20. Travel pattern shifts and new development forces will result from relative accessibility changes brought about by the new interchange. The functional classification of Louisville, Old Louisville and Tubman will tend to increase from a minor arterial to a principal arterial. As that change occurs, it would be desirable in terms of transportation system performance for the County to manage or control the amount of land access permitted onto and off of these roads.

Table T-4
Minimum Standards For Street System Based On Functional Class Design

Abutting Land-Use Type	Functional Class/ No. of Lanes	Lane Width (feet)	Median Width (feet)	Right-of-Way		Operating Speed (mph)	Signal Spacing (miles)	Unsig- nalized Access Spacing (feet)
				Recom- mended	Absolute			
Mixed	Major Arterial							
	6-Lane	11-12	25-30	140	120	45	0.25	350
	4-Lane	11-12	16	110	95	45	0.25	350
	Minor Arterial							
	5-lane	11-12	14	100	80	40	0.25	300
	4-lane	11-12	-NA-	80	75	40	0.25	300
	Major Collector							
	5-lane	10-11	-NA-	90	75	35-40	-NA-	200
Residential	4-lane	11	-NA-	80	75	35-40	-NA-	200
	Major Collector							
	2-lane	-NA-	-NA-	70	70	35	-NA-	150-200
	Minor Collector							
	2-lane	-NA-	-NA-	65	60	30	-NA-	-NA-
	Local							
	2-lane	-NA-	-NA-	60	50	25	-NA-	-NA-

Freeways

Freeways are limited access, multi-lane, divided roadways, permitting high speed traffic. Columbia County is served by two freeways, I-20 and I-520. I-20, which currently serves the County with seven interchanges, spans almost the entire east-west length of the County. At the eastern end, it indirectly serves the Martinez-Evans portion of the county with arterial access from interchanges located in Richmond County. Three arterial facilities provide this connectivity, including: River Watch Parkway (SR104), Washington Road and the Bobby Jones Expressway Extension (SR232). At the west end of the Martinez-Evans area, I-20 provides direct access to the County at Wheeler Road and Belair Road (SR383). In the more rural, western portion of the County, there are two more interchanges providing direct access: Lewiston Road (SR388) and Appling-Harlem Road (US221).

I-520 serves Columbia County indirectly by means of the Bobby Jones Expressway Extension (SR232). This Interstate provides a route for north-south travel around the western edge of Augusta. Many of the region's large employers and shopping centers are located off the I-520 beltway.

Arterials

The principal function of arterial roads is to move traffic through an area, although they also provide access to and from cross streets and private driveways. Most of the County's arterial roads interchange directly or indirectly with I-20. Wrightsboro Road (SR223) and Gordon Highway (US278) interchange with I-520 in Richmond County. Harlem-Grovetown Road; Louisville/Old Louisville; and North Belair Road are the only arterial facilities that do not have direct or close by linkage to the freeway system.

In evaluating and planning a local transportation system, it is advantageous to split arterial roads into two subgroups: major and minor arterials. Major arterials serve longer distance trips, offer slightly higher average travel speeds and generally accommodate higher volumes of traffic in comparison with minor arterials. Columbia County highways that are classified as major arterials include: River Watch Parkway (SR104); Washington Road; Bobby Jones Expressway Extension (SR232); Fury's Ferry Road (SR28); Columbia Road (SR232); Belair/Evans To Locks/Stevens Creek; Lewiston/Hereford Farm/Horizon South Parkway; Appling-Harlem/Clarks Hill (US221); Wrightsboro Road (SR223); Gordon Highway (US278); and Cobbham Road (SR150). In contrast, Harlem-Grovetown Road; Louisville/Old Louisville; and North Belair Road are considered minor arterial streets.

It would be desirable for major arterials, in the urbanized portion of the county, to have between 95 and 120 feet of right-of-way to allow for future widenings, bike lanes, sidewalks and medians. Within 500 feet of major intersections, right-of-way should increase to allow for additional turn lanes. Future design considerations are also heavily influenced by the area types surrounding a particular road. Practical design features for a major arterial in an urbanized portion of the County will differ from those that are considered in a rural section.

Minor arterials typically have cross streets and driveways spaced closer together than their major arterial counterparts. Average travel speeds are lower and they generally carry lower volumes of traffic. In this classification, the facilities provide for through traffic but the function begins to include more collection and distribution to local collector roads. In the urbanized area, a minor arterial should have an 80-foot right-of-way with extra right-of-way for turn lanes within 500 feet of major intersections.

In all cases, driveway access to arterial roads should be limited in order to protect the through-traffic capacity of the roadway and for increased traffic safety. Spacing distances between commercial driveways, internal access between commercial properties, and reverse-frontage lots in residential subdivisions are requirements of the County's zoning and subdivision regulations.

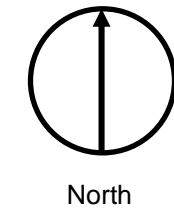
Collectors

The primary purpose of collector streets is to provide access to adjacent properties and circulation within residential, commercial and industrial areas. Some collector streets serve through traffic along with the traffic that is accessing a destination nearby. The division between minor arterial and major collector roads is sometimes slight. As with arterial thoroughfares, collectors are divided into two subgroups: major collectors and minor collectors. Collector streets intersect more frequently with cross streets and driveways than arterial roads. Average travel speeds in urban areas are typically in the 25 to 35 miles per hour range. Outside the urbanized portion of the County, average travel speeds may be much higher as the intensity of land use diminishes and intersection conflicts drop.

Collectors are usually 2-lane facilities. They sometimes include a 2-way center left turn lane or even a 4-lane cross-section because of dense driveway spacing or relatively high land use intensity. Major collectors in urbanized areas should have a 75 to 80-foot right-of-way. For minor collectors, a 60- to 65-foot right-of-way is desirable.

There are numerous collector roads in the County. Some examples of major collectors in the Martinez-Evans area are: Flowing Wells Road; Old Belair Road; Wheeler Road; Old Evans Road; Old Petersburg Road; Baston Road; and Davis Road. Minor collectors in the Martinez-Evans area include: Industrial Park Drive; Washington West Drive; Hardy-McManus Road; Owens Road; Columbia Industrial Drive; Columbia Industrial Boulevard; Blackstone Camp/Point Comfort; Oakley Pirkle Road; and Watervale Road.

COLUMBIA COUNTY



KEY






-  Freeway
-  Major Arterial
-  Minor Arterial
-  Major Collector
-  Minor Collector

Figure 8-2
Existing Number of Lanes



Outside of the urbanized area, collectors are not broken into major and minor facilities. There are a large number of collectors serving the rural areas of the County. Examples from different sections of the County include: Old Whiteoak Road in the Harlem area; Newmantown Road in the Grovetown area; Chamblin Road and William Few Parkway around Patriots Park; White Oak Road west of Appling; Tubman Road in the central portion of the County; and Mistletoe Road and Ridge Road in the Clarks Hill Lake area.

Like arterials, driveway access to collector roads should be limited in order to protect the through-traffic capacity of the roadway and for increased traffic safety. Spacing distances between commercial driveways, internal access between commercial properties, and reverse-frontage lots in residential subdivisions are requirements of the County's zoning and subdivision regulations.

Local Roads

Local roads are those streets that provide direct access to properties, both residential and commercial/industrial. These are 2-lane facilities that may permit parking on one or both sides, and are characterized by frequent driveway cuts and slow speeds. For those serving residential land-uses, they should exhibit a "neighborhood" character. It is desirable to have a 50-foot right-of-way in residential areas, and a 60-foot right-of-way in commercial and industrial areas. All roads not classified as collectors or arterials are considered to be local streets.

■ Existing Conditions

The emphasis of this section is describing existing conditions on the County's road system because the automobile is the predominant mode used for travel. Improvements to the street and highway system are a critical component of the set of capital improvements that will be needed for the County to maintain a healthy balance between providing an attractive quality of life and accommodating new growth.

Street and Highway System

In a detailed corridor or sub-area transportation study, a number of factors determine the level-of-service on a particular section of road. These include: accident experience; driver maneuverability; sight distance; pavement condition; and the amount of delay. In the comprehensive plan, however, the evaluation process is simplified. In this study, the County's road system was evaluated to determine if the number of through-lanes on a specific facility is sufficient to accommodate the amount of traffic on the road at an acceptable level-of-service. A map showing which of the County's thoroughfares are multi-laned is presented in Figure 8-2.

Levels-of-service (LOS) were calculated for segments by calculating the ratio of daily traffic volume to the segment's equivalent daily capacity. Levels-of-service are indicated by letter grades, A-F, which are assigned to each link in accordance with its computed volume to capacity ratio. These grades are similar to those that children get on their report cards.

At one extreme, LOS "A" signifies that motorists travel with little or no delay and have room to maneuver as they approach an intersection at the downstream end of a segment. At the other extreme, LOS "E" denotes that the volume of traffic is approaching the capacity threshold. LOS "E" is characterized by low average speeds, delay at intersections and little room to maneuver. Below LOS "E" is LOS "F". LOS "F" conditions occur when more traffic attempts to pass through

an intersection or section of road than the intersection or segment is designed to accommodate. These points or short sections are referred to as bottlenecks. LOS “F” conditions are characterized by long delays between intersections, low average speeds and little room to maneuver. Levels-of-service are described in terms of their corresponding volume-to-capacity ratios and average speeds for urban arterial roads in Table T-5.

Table T-5
Level-of-Service Criteria For Urban Arterials

Level-Of-Service	Volume-To-Capacity	Avg. Travel Speed (mph)
A	< 0.50	>= 35
B	0.50 - 0.60	>= 28
C	0.60 - 0.75	>= 22
D	0.75 - 0.90	>= 17
E	0.90 - 1.00	>= 13
F	>= 1.00	< 13

The minimum level-of-service (LOS) designation that Columbia County will consider acceptable, in terms of planning for adequate capacity, is LOS “C”. At LOS “C”, the volume-to-capacity ratio is in the 0.60 to .75 range and average peak hour travel speeds fall into the 22 to 28 miles per hour range on urban arterials. This level-of-service criteria does not have relevance in terms of evaluating rural arterial and collector streets. Although they are evaluated herein, congestion is typically not a problem there. Design parameters pertaining to safe operating conditions at the posted speed limit become the key performance measures on these routes. In rural areas, road features pertaining to sight distance, pavement condition, lateral obstructions and shoulder conditions are usually more influential in planning improvements than adding additional capacity.

Sections of the County’s street and highway system where the LOS drops below “C” are highlighted in Figure 8-3. As expected, they are located in the urbanized portion of the County. In comparison with most other rapidly growing counties located on the edge of an urbanized area, Columbia County has very few existing capacity-deficient segments of road. Nevertheless, there are sections on several different roads near I-20 and the Richmond County border where the level-of-service is unsatisfactory. These segments are listed in Table T-6 below by their functional classification.

Figure 8-3
Existing Capacity-Deficient Road Segments

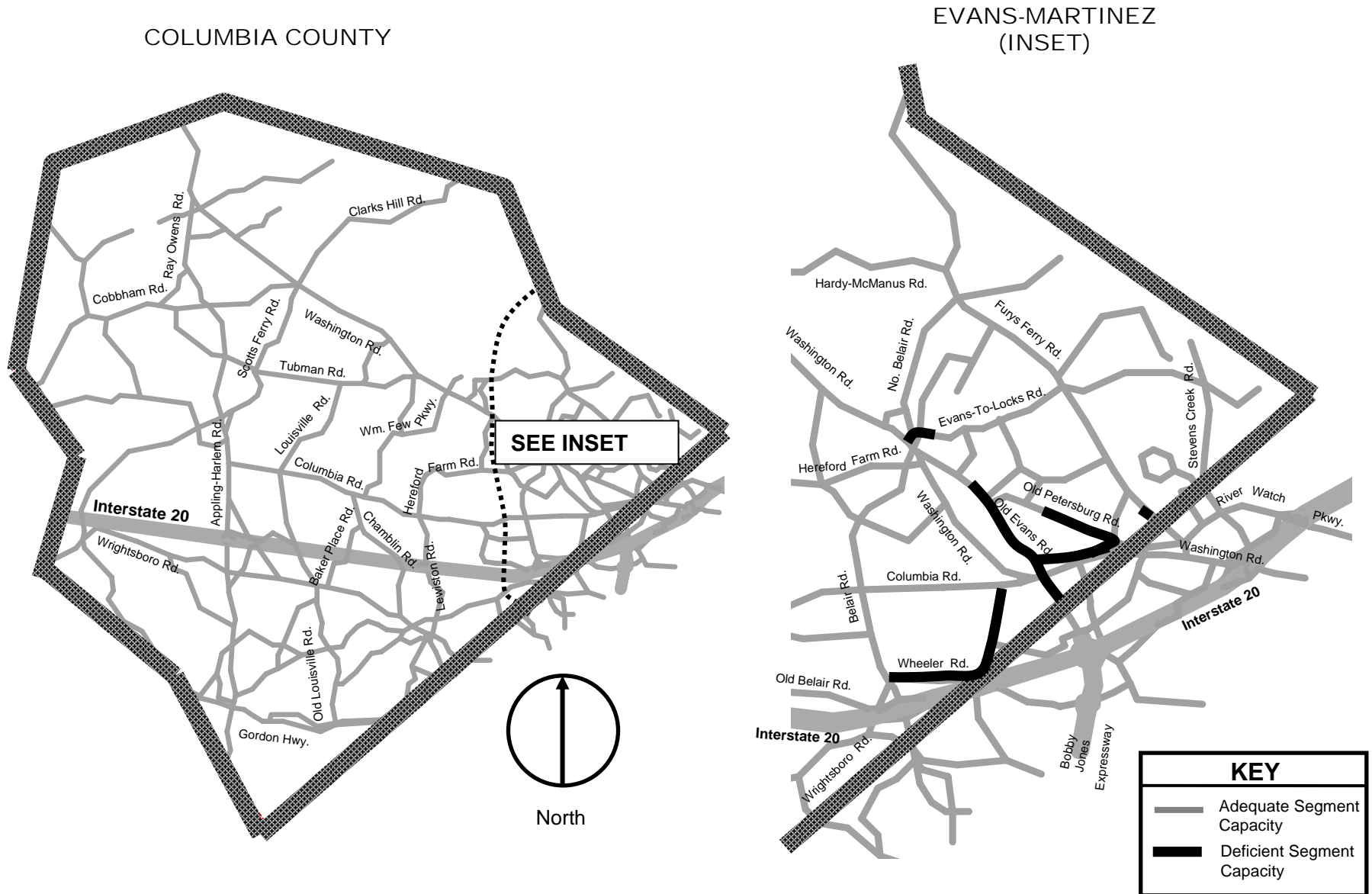


Figure 8-4
Currently Planned Roadway and Trail Improvements

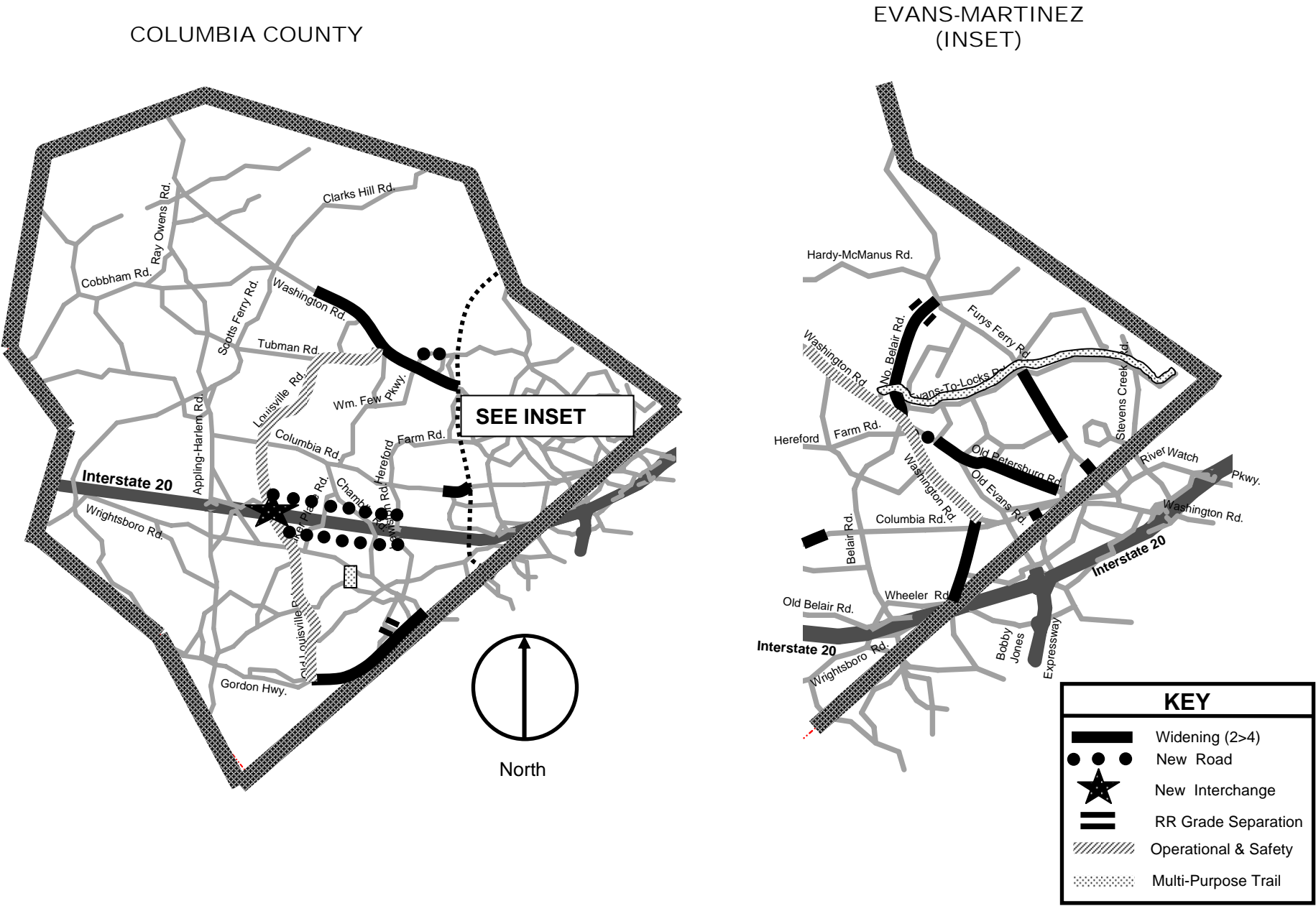


Table T-6
Capacity-Deficient Road Segments

Functional Class	Road Name	Location
Major Arterials:	Fury's Ferry Road (SR28)	River Watch Parkway (SR104) to Baston Road
	Washington Road (SR104)	Bobby Jones Expressway Extension (SR232) to Columbia Road (SR232)
	Bobby Jones Expressway Extension	I-20 to Washington Road (SR104)
Major Collectors:	Wheeler Road	I-20 to Belair Road (SR383)
	Flowing Wells Road	Wheeler Road to Columbia Road (SR232)
	Baston Road	Old Petersburg Road to Stardust Drive
	Evans To Locks Road	Columbia Industrial Boulevard to Industrial Park Drive
	North Belair Extension	Evans To Locks Road to Washington Road (SR104)
	Old Evans Road	Old Petersburg Road to Washington Road (SR104)
Minor Collector:	Martinez Boulevard	Commercial Boulevard to Baston Road

■ Maintenance Activities

Planning for the County's roads and bridges includes more than road improvements. Preservation of the County's existing system of roads and bridges is also an integral part of the transportation plan. The current maintenance program includes such activities as: road repairs; signal repairs; sign upkeep and visibility, drainage repair, and even minor improvements for traffic control at intersections. Recently, a traffic calming program was added to the list of transportation services provided by the County under its maintenance program. Annual maintenance costs are currently in the \$3 million range. Approximately \$2 million comes from the County's general fund and \$1 million from the insurance premium tax fund.

■ Current Road Improvement Plans

During the past ten years, the County's road network has been one of the principal beneficiaries of two five-year Special Purpose Local Option Sales Tax (SPLOST) programs. Funds from the special purpose sales taxes have been used to address purely local transportation needs as well as in combination with state and federal highway funds to improve the arterial and major collector system of roads. Many of the intersection improvements, dirt road paving projects, resurfacing

ing, drainage, traffic control and operational and safety projects completed during the last ten years were funded entirely out of proceeds from the special purpose sales tax. Some of the larger-scale improvement projects, such as the I-20 interchange with Wheeler Road and the Fury's Ferry/Baston Road intersection improvement, were funded primarily with Georgia Department of Transportation revenues. A matching local source of revenue, however, is usually needed to supplement the Georgia Department of Transportation's funds on major highway projects such as these. To this end, Columbia County's special purpose sales tax has been instrumental toward making road improvements funded by the Georgia Department of Transportation inside the County a priority.

As shown in the existing conditions section, Columbia County has used previous sales tax proceeds to provide a high level-of-service for motorists on its street and highway system. A new special use sales tax, approved during the summer of 2000, will be used to perpetuate the program of street and highway improvements that have enabled Columbia County to stay ahead of widespread traffic congestion that generally afflicts fast growing areas.

Major State and County Projects

As outlined earlier in this plan, the State and ARTS in cooperation with Columbia County, are responsible for the majority of road construction projects within the County. Following is a description of proposed projects as currently outlined by the State and the County. They are illustrated on a map in Figure 8-4, as well.

- Widen Fury's Ferry Road (SR28) from Riverwatch Parkway (SR104) to Evans To Locks Road
- Riverwatch Parkway Extension: Widen and Extend Old Petersburg Road and Old Evans Road from Baston Road to Washington Road (SR104)
- Upgrade and widen grade separation at North Belair Road at the CSX railroad tracks
- Widen and connect North Belair Road and Industrial Park Drive from Washington Road (SR104) to Fury's Ferry Road (SR28)
- Widen Columbia Road (SR232) from Glenora Drive to west of Crawford Creek
- Widen Flowing Wells Road from Washington Road (SR 140) to Wheeler Road
- Widen Davis Road from Washington Road (SR104) to Richmond County with a median
- Extend William Few Parkway east to Hardy-McManus Road
- Widen Washington Road (SR104) north from Halali Farm Road to Pollards corner (SR 150)
- Add a raised center median to Washington Road (SR104) from Flowing Wells Road to Halali Farm Road
- Widen Gordon Highway (US278) from Old Louisville Road to Robinson Avenue
- New Interchange with I-20 at Louisville Road
- Operational and safety improvements to Old Louisville Road, Louisville Road, Tubman Road and between Washington Road (SR104) and Gordon Highway (US278)
- Widen Baston Road between Washington Road and Fury's Ferry Road to 4 lanes with a median

Other Identified Problems

There are other problems that afflict the level-of-service on the street and highway network. Some of these are listed below:

- Operational and/or safety problems at intersections;
- Heavy truck traffic on Wrightsboro Road in the Harlem area;
- Cut-through traffic and speeding vehicles on residential streets; and
- Accessibility to roads that comprise the principal thoroughfare system from subdivision streets and busy commercial driveways

■ Bicycle and Pedestrian Facilities

There are not a lot of bicycle or pedestrian facilities in Columbia County at this time. There are no existing bike lanes on the County's road network, nor are there any off-road bike trails at this time. Nevertheless, residents still use the county's roads to bicycle recreationally. Especially on those roads that are located in rural portions of the County.

To provide better and safer recreational opportunities, there are plans to construct two multi-use greenways in the County. The first planned greenway trail is located in the Martinez-Evans area. It would allow for bicycle and pedestrian activities. The trail would connect the Evans Government Center with the Savannah Rapids Pavilion Center by way of Evans-to-Locks Road. This project is scheduled to be constructed during FY 2001. The second planned greenway trail is located in the Grovetown area. This will also provide opportunities for both pedestrians and bicyclists. It will connect Wrightsboro Road and Grovetown-Harlem Road by way of Euche Creek.

At this time, sidewalks are considered to be more of an urban design amenity than a legitimate element of the transportation network. Some of the newer subdivisions are including sidewalks as amenities to enhance circulation and community ambiance inside residential enclaves. There are several short pieces of sidewalk situated alongside the County's principal thoroughfares but not to the extent that they provide meaningful routing for pedestrians.

Existing land-use practices contribute to why sidewalks are not considered to be a legitimate means for trip making purposes. Buildings that house many of the County's service businesses, large employers and shopping centers are set-back a lengthy distance from the street such that individuals are discouraged from walking between places, even when they are located in neighboring parcels. Moreover, there are busy driveways and parking lots that pedestrians frequently navigate through or maneuver around to avoid conflicts with motorists. Both the building set-backs and the degree to which property layouts acquiesce to motor vehicle access present obstacles to utilizing the transport potential of sidewalks.

■ Public Transportation

Paratransit

Columbia County provides transport services for individuals who do not have access to an automobile or who are not able to drive. It is one of the many services offered through the Columbia County Senior Center located in Grovetown.

The County provides a door-to-door, van-operated type of public transportation service for all residents who desire to travel within Columbia County or even to parts of Richmond County. With the exception of Fort Gordon, the service will not provide trips south of Gordon Highway (US278) inside Richmond County. Van service operates Monday through Friday between the hours of 8:00 A.M. and 5:00 P.M.. Reservations need to be made at least 24-hours in advance of the desired trip time so the pick-up and drop/off can be scheduled. Fares for adults are \$2.00 one-way and \$4.00 for a roundtrip. Children and infants under 12 ride for half price.

Bus Service

There is no regularly scheduled, fixed-route bus service operating in Columbia. Regularly scheduled bus service is provided in Richmond County, but none of the bus lines operate inside Columbia County. There is a privately funded and operated shuttle service inside the County that links transit users in Richmond County with major employers in Martinez-Evans, like Club Car, Inc.

The operator of fixed-route bus service in the area is Augusta Public Transportation Authority (APTA). Over the years, Columbia County has elected not to receive regular, fixed-route bus service from APTA because the benefit-to-cost is not favorable at this point in time. If the County were to receive service, then they would be obligated to provide funding to APTA to help them in underwriting the portion of their operating costs that are not paid from riders' fares. Although some residents and businesses would benefit from this type of transportation service, it does not appear that the total benefits would outweigh the costs at this time.

Rail Passenger Service

There is no rail passenger service in Columbia County or in the Augusta-Aiken metropolitan area. Currently, the nearest inter-city passenger trains stop in Savannah, Columbia, SC, and Atlanta. Inter-city rail passenger service is operated by AMTRAK. The AMTRAK line passing through Columbia, SC and Savannah connects Washington, D.C. and other places in the north-eastern United States with destinations in Florida. The AMTRAK line serving Atlanta is on a route that links Washington, D.C. to New Orleans, LA..

■ Railroads

The CSX Corporation operates freight service through two corridors in the County. One line comes north out of Augusta and travels northward through the Martinez-Evans area into South Carolina. This route parallels River Watch Parkway and Washington Road before running through the Columbia County Industrial Park on its way to the border with South Carolina. A bridge widening and overpass upgrade is planned for North Belair Road, just north of Industrial Drive.

The other corridor served by CSX parallels Gordon Highway (US278) in the southwest corner of the County. This line serves industries in the City of Harlem and the City of Grovetown. This line connects to Augusta in the east and to Atlanta in the west. A grade separation is planned at Parham Road, just north of the Gordon Highway Speedway, to remove a conflict between motor vehicles and freight trains using this line.

■ **Transportation Plan**

In order for Columbia County's transportation system to keep pace with the amount of residential and commercial growth that appears destined to come, there should be a new set of transportation improvements that follow those listed above. Those listed above are already in various stages of project development in the Augusta Regional Transportation Study's (ARTS) plans. Transportation improvements that are already in the plan are there, primarily, to address existing traffic and safety deficiencies in the County's roadway system. Of those projects, several are not scheduled to include any construction during the next five years. Instead, they are in preliminary stages of their implementation sequence. Initial stages of project implementation include preliminary engineering and right-of-way acquisition.

Additional Road Projects

Other road projects, which are in addition to those already in the ARTS plans, are being proposed in the Comprehensive Plan to address new mobility needs that will be an offshoot of future growth. These projects include:

- Constructing a new interchange on I-20 at Louisville Road;
- Widening, realignment and reconstruction of Old Louisville Road, Louisville Road, Tubman Road, and Old Washington Road to Washington Road (SR104); and
- Establishing a permanent budget to plan, design and fund operational and safety improvements throughout the county.

Preparation of Long-range Comprehensive Transportation Plan

As more of Columbia County gets built-up, identifying the right mix of transportation improvements will become more complicated. Accommodating bicycle and pedestrian travel will become a standard consideration on nearly all types of road improvements, as well as for enhancement projects. With new growth and roadway expansions, there will be more requests to provide fixed-route public transit service along with the road improvements. Projects will need to be consistent with the County's Growth Management Plan and the public will become increasingly sensitive to how roadways interact with their surroundings. Prior to endorsing future transportation plans, more detailed study will be required, particularly within the context of improvements that are already planned or under construction. To this end, preparation of a long-range Comprehensive Transportation Plan is included in the Short Term Work Plan (STWP).

Potential Projects Requiring Study

A number of potential projects would be studied and addressed as part of a Long-range Comprehensive Transportation Plan before commitments are made. Examples of these potential projects requiring further study are:

- Provide additional road capacity in the Lewiston Rd./Horizon South Parkway Corridor;
- Widening Old Evans Road (Bobby Jones Exwy. Extension to Old Petersburg Road);
- Improving Hereford Farm Road;
- Providing a connector road from Hereford Farm Road to William Few Parkway;
- Connection of Hardy-McManus Road Extension to Old Washington Road at Washington Road (SR104);
- Widening segments and/or adding turn lanes to intersections on Fury's Ferry Road, Evans to Locks Road Washington Road, and Hardy-McManus Road;
- Widening Wheeler Road from Flowing Wells Road to Belair Road; and
- Feasibility of additional pedestrian and bicycle facilities.

Transportation Plan Project Listing

The following table incorporates projects included in the ARTS plan, additional proposed projects or programs and projects that will be studied in the Long-range Comprehensive Transportation Plan. The project listings show the assumed project implementation time frame, the most recent estimated cost in 1999-dollar value and funding source(s). The time frame indicates whether an individual project is included in the five-year Short Term Work Program (STWP) or is anticipated to be implemented in the outer years of the plan, as part of the 20 year plan (LRTP).

TRANSPORTATION PLAN Elements	Time Frame	Total Cost	Funding Sources
Federal, State and County Funded			
Widen Old Petersburg Road and Old Evans Road from 2 to 4 lanes and extend from Riverwatch Pkwy to Washington Road (SR104) at Town Center Drive	STWP	\$34,089,000	Fed, State
Widen Washington Road from 2 to 4 through lanes with a 40-foot median from Halali Farm Rd. to Pollards Corner	STWP	\$21,302,000	Fed, State
Add raised median to Washington Road from Flowing Wells Road to Halali Farm Rd.	STWP	\$5,500,000	Fed., State,
Widen Fury's Ferry Road from 2 to 4 lanes from Riverwatch Pkwy to Evans to Locks Road.	STWP	7,300,000	Fed., State
Widen North Belair Road and Industrial Park Drive from 2 to 4 lanes from Washington Road (SR 104) to Fury's Ferry Road (SR28) including new alignment	STWP	\$4,600,000	Fed., State
Widen North Belair Road at the CSX railroad tracks	STWP	\$4,600,000	Fed., State
Widen Davis Road from Washington Road (SR 104) to Skinner Mill Road in Richmond County	STWP	\$3,600,000	Fed., State, County
Widen Gordon Highway (US278) from Old Louisville Road to Robinson Avenue (SR223)	STWP	\$13,957,000	Fed., State, County
Construct bridge over CSX RR on Parham Road in Grovetown	STWP	\$725,000	Fed., State

TRANSPORTATION PLAN Elements	Time Frame	Total Cost	Funding Sources
Widen Columbia Road (SR232) from Glenora Drive to west of Crawford Creek	STWP	\$4,500,000	Fed., State, County
Widen Flowing Wells Road from 2 to 4 lanes from Wheeler Road to Washington Road	STWP	\$7,000,000	Fed., State
Construct William Few Parkway Extension connecting William Few Pkwy. to Hardy-McManus Road	L RTP	\$3,000,000	Fed., State, County
Construct new Interchange with I-20 at Louisville Road	L RTP	\$5,000,000	Fed., State, County
Operational and safety improvements to Louisville Road, Old Louisville Road and Tubman Road to Washington Road (SR104)	L RTP	\$5,000,000	Fed., State, County
Construct multi-purpose trail from Harlem-Grovetown Rd. to Wrightsboro Rd. along Uchee Creek in Grovetown area	STWP	\$800,000	Fed., State, County
Construct a multi-use trail along Evans to Locks Road from County's Government Center to Savannah Rapids Pavilion	STWP	\$1,215,000	Fed., State, County
Construct sidewalks along Washington West Drive in County's Government Center	STWP	\$213,000	Fed., State, County
Widen Baston Road between Washington Road and Fury's Ferry to 4 lanes with a center median	STWP	\$7,200,000	Fed., State, County
County-Funded Programs and Projects			
Implementation of G.I.S. Transportation Program	STWP	\$75,000 per year	County
Operational and Safety Improvement Program	STWP	\$100,000 per year	County
Implementation of Operational and Safety Improvement Projects	STWP	\$1,000,000 per year	County
Implementation of Traffic Calming Strategies	STWP	\$300,000	County
Resurfacing Dirt Roads	STWP	\$4,000,000	County
County-Funded Studies			
Evans Town Center traffic improvements	STWP	\$50,000	County
Countywide transit feasibility	STWP	\$45,000	County
Conduct Long-range Comprehensive Transportation Plan	STWP	\$120,000	County
Comprehensive Transportation Plan			
Investigate feasibility of widening Baston Road from Revere Road to Lakeshore	-N/A-	\$0	-N/A-
Consider possible re-design of the I-20 interchange at Lewiston Road and I-20 interchange at Applying Harlem Grovetown, SR 47/US 221	-N/A-	\$0	-N/A-
Investigate widening of Lewiston Rd. from Grovetown to Columbia Rd.	-N/A-	\$0	-N/A-

TRANSPORTATION PLAN Elements	Time Frame	Total Cost	Funding Sources
Feasibility of constructing new connector streets north and south of I-20 and roughly parallel to I-20 from Louisville Road to Lewiston Road	-N/A-	\$0	-N/A-
Investigate the feasibility of connecting Louisville-Tubman to Hardy-McManus Rd via Old Washington Rd.	-N/A-	\$0	-N/A-
Investigate the feasibility of improving Old Evans Road from 2 to 3 or 4 lanes	-N/A-	\$0	-N/A-
Investigate the feasibility of improving Hereford Farm Rd. from Columbia Rd. to Belair Rd.	-N/A-	\$0	-N/A-
Investigate feasibility of constructing new road to connect Hereford Farm Rd. with William Few Pkwy. and Washington Rd.	-N/A-	\$0	-N/A-
Investigate the feasibility of improving Evans to Locks Road from a 2 lane section to a 3 lane section with turn lanes	-N/A-	\$0	-N/A-
Investigate feasibility of improvement to Fury's Ferry Road from a 2-lane section to a 3-lane section from Evans to Locks to Hardy McManus with pedestrian/bike paths	-N/A-	\$0	-N/A-
Investigate the feasibility of improving Hardy McManus Road from 2 lanes to 3 lanes with turn lanes with pedestrian/bike paths	-N/A-	\$0	-N/A-
Investigate the feasibility of improving Harlem-Grovetown - Road with pedestrian/bike paths	-N/A-	\$0	-N/A-
Investigate the feasibility of widening Wheeler Road from 2 to 4 lanes from Flowing Wells Road to Belair Rd.	-N/A-	\$0	-N/A-

Total projected expenditures listed in the preceding table amount to \$143 million over the 20-year life of the plan, in year 1999 dollars. This figure does not include routine maintenance and repair activities. Adding the current operating and maintenance expenditure of \$3 million per year would raise the total plan cost to \$203 million. The highest cost component of the plan are major road and pedestrian/bicycle improvement projects that are or will be programmed for implementation in cooperation with the Georgia Department of Transportation. This category of projects cost approximately \$110 million which is 54% of the total cost (including operations and maintenance). They divided into a separate category because they are only partially funded by the County. They are listed in the table as projects funded by revenues from federal, state and county sources. These types of projects are planned by Columbia County and the Georgia Department of Transportation through the Augusta Regional Transportation Study (ARTS), the metropolitan transportation planning organization representing County and City governments in the Augusta area. With the exception of two, all of the Short Term Work Program (STWP) projects funded by federal, state and county money are currently programmed by the ARTS to receive federal and state funding. The County has requested federal and state funding through the ARTS and Georgia Department of Transportation for the Euche Creek multi-use bicycle/pedestrian path in Grovetown and Washington West Drive sidewalk project. These types of projects are eligible for financial aid from a special federal funding source referred to as the TEA-21 Enhancement Program. Those projects that are slated to fall into the County's Long Range Transportation Plan (LRTP) are not yet programmed to receive federal and state funding. These include two projects that would be needed to construct a new interchange between I-20 and Louisville Road as well as the roadway linkage between Hardy-McManus Road and William Few Parkway.

The County also has road improvement needs that are either not eligible for federal and state funds or that merit quick response in terms of implementing a relatively low-cost improvement. These types of programs and projects are listed under the category titled County-Funded in the table. This category does not contain individual projects. Instead, this portion of the plan contains a \$1,000,000 per year lump sum to implement these types of projects. In order to identify projects, communicate the recommended actions to elected officials and prioritize the expenditures, there are two management programs in this category as well. These low-cost improvements may include treatments like: a drainage-related repair; an extra turn lane; changing from stop sign control at an intersection to traffic signal control; changing signal timing; Implementing a traffic calming strategy inside a subdivision; adding an auxiliary-lane between a busy intersection and a busy driveway; making provisions for pedestrians to safely cross a busy road. As a result of growth, changing economic conditions, shifting household demographics and the emergence of new job centers there are and will be sudden travel pattern changes resulting in undesirable operating conditions. Undesirable in terms of safety and/or significant increased delay.

Based on an assessment of projects and programs already identified for inclusion in the County's transportation plan and in consideration of making them compatible with other elements of the Comprehensive Plan, three county-funded studies were recommended in the STWP. The most important study is a Comprehensive Transportation Plan whose purpose was described earlier in this section. The plan also includes a transit feasibility study. As the county grows and becomes more diverse in terms of households, employers and shopping opportunities, alternative forms of mobility will likely be desirable. This study would identify what form(s) of transit would best suit the County; identify potential routes and/or programs, estimate generalized costs; and describe different types of policy-making and service delivery structures that would make sense in Columbia County. Finally, the plan contains a study that would examine, in detail, how several planned road improvements would merge together in the Evans Town Center area. As elements of the transportation plan are implemented, two major, four-lane roads will intersect with Washington Rd. (SR104) around its existing intersection with Belair Road. The planned Old Petersburg Road extension and the North Belair Road Extension are proposed four-lane roads that will intersect Washington Road in Evans Town Center. In addition to these junctions, there are other busy intersections nearby, including Old Evans and Hereford Farm. In the future, this particular area will need to accommodate far more traffic and more complex turning movements than exist already. This study is needed to ensure that these individual road improvements are compatible with the land-use plan for Evans Town Center in light of the provisions that will be needed to accommodate turning movements projected in this area.

Planned Transportation Improvements Map

Key to Projects

Map Id. Number	Project Description
1	Widen Old Petersburg Road and Old Evans Road from 2 to 4 lanes and extend from Riverwatch Pkwy to Washington Road (SR104) at Town Center Drive
2	Widen Washington Road from 2 to 4 through lanes with a 40-foot median from Halali Farm Rd. to Pollards Corner
3	Widen Fury's Ferry Road from 2 to 4 lanes from Riverwatch Pkwy to Evans to Locks Road.
4	Widen North Belair Road and Industrial Park Drive from 2 to 4 lanes from Washington Road (SR 104) to Fury's Ferry Road (SR28) including new alignment
5	Widen Davis Road from Washington Road (SR 104) to Skinner Mill Road in Richmond County
6	Widen Gordon Highway (US278) from Old Louisville Road to Robinson Avenue (SR223)
7	Widen Columbia Road (SR232) from Glenora Drive to west of Crawford Creek
8	Widen Flowing Wells Road from 2 to 4 lanes from Wheeler Road to Washington Road
9	Construct William Few Parkway Extension connecting William Few Pkwy. to Hardy-McManus Road
10	Construct new Interchange with I-20 at Louisville Road
11	Add raised median to Washington Road from Flowing Wells Road to Halali Farm Rd.
12	Operational and safety improvements to Louisville Road, Old Louisville Road and Tubman Road to Washington Road (SR104)
13	Widen grade separation on North Belair Road at the CSX rail-road tracks
14	Construct bridge over CSX RR on Parham Road in Grovetown
15	Construct multi-purpose trail from Harlem-Grovetown Rd. to Wrightsboro Rd. along Eucree Creek in Grovetown area
16	Construct a multi-use trail along Evans to Locks Road from County's Government Center to Savannah Rapids Pavilion
17	Construct sidewalks along Washington West Drive in County's Government Center
18	Widen Baston Road from 2 to 4 lanes.



Columbia County

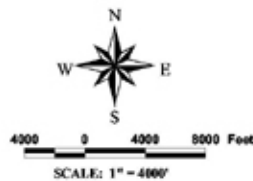
Planned Transportation Functional Classification

LEGEND

- County Boundaries
- City Boundaries

Functional Classification

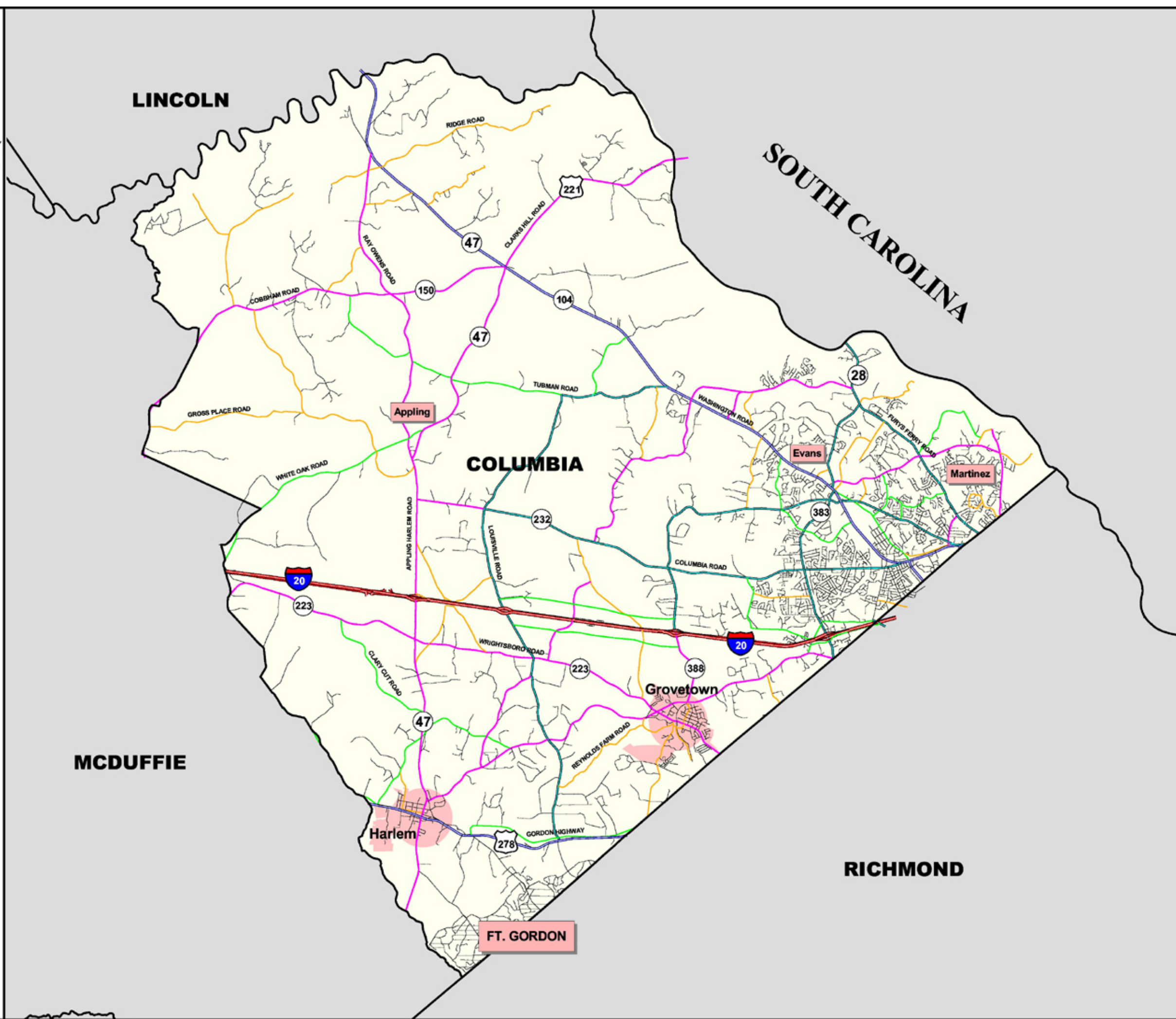
- Interstate / Freeway
- Principal Arterial
- Intermediate Arterial
- Minor Arterial
- Major Collector
- Collector
- Local Roads



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Columbia County

Planned Transportation Improvements

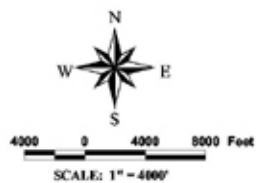
LEGEND

- County Boundaries
- City Boundaries
- Street Centerlines
- Major Roads
- Railroads

Improvement Type

- Grade Separation
- New Interchange
- Adding Lanes
- New Road
- Sidewalk & Landscape
- Multi-Use Trail
- Add Median
- Turn lanes; Sight Distance; Alignment

Map ID No.	Description
(1)	Widen Old Farmington Rd and Old Evans Rd from 2 to 4 lanes and extend from Riverwatch Pkwy to Washington Road (SR 104) at Town Center Dr
(2)	Widen Washington Rd from 2 to 4 through lanes with a 40 ft median from Old Farm Rd to Pollock Corner
(3)	Widen Furry's Ferry Road from 2 to 4 lanes from Riverwatch Pkwy to Evans to Locke Road
(4)	Widen North Davis Road and Industrial Park Drive from 2 to 4 lanes from Washington Rd (SR 104) to Furry's Ferry Road (SR 104) including new alignment
(5)	Widen Davis Road from Washington Rd (SR 104) to Skinner Rd Road in Richmond County
(6)	Widen Gordon Hwy (SR 218) from Old Louisville Rd to Robinson Rd (SR 223)
(7)	Widen Columbia Rd (SR 232) from Geneva Drive to west of Crawford Creek
(8)	Widen Fanning Wells Rd from 2 to 4 lanes from Wheeler Rd to Washington Rd
(9)	Construct William Fawcett Exl connecting William Fawcett to Hardy-Bellows Rd
(10)	Construct new interchange with SR 223 at Louisville Rd
(11)	Add raised median to Washington Rd from Fanning Wells Rd to Hardy-Bellows Rd
(12)	Operational and safety improvements to Louisville Rd, Old Louisville Rd and Tubman Road to Washington Road (SR 104)
(13)	Widen grade separation on N. Davis Rd at the CSX railroad tracks
(14)	Construct bridge over CSX RR on Parham Rd in Grovetown
(15)	Construct multi-purpose trail from Harlem/Grovetown Rd to Longbottom Rd along Fadden Creek in Grovetown area
(16)	Construct a multi-use trail along Evans to Locke Rd from County Government Center to Savannah Rapids Pavilion
(17)	Construct sidewalk along Washington West Dr in County Government Center
(18)	Widen Station Rd from 2 to 4 lanes



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